

# Directional Coupler

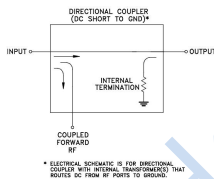
## Features

- wideband, 5 to 1000 MHz
- low mainline loss, 1.0 dB typ.
- high directivity, 23 dB typ.
- good VSWR, 1.15 typ.
- excellent solderability

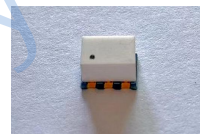
## Applications

- communications
- VHF/UHF

## Electrical Schematic



## HT-JDC-10-4+



50Ω 5 to 1000 MHz

## Directional Coupler Electrical Specifications

FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS dB		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT, W
	Nom.	Flatness	Min.	Max.	Min.	Max.	Typ.	Max.
5-1000	10.5±0.5	±0.6	1.0	1.8	15	24	1.15	1.0

## Typical Performance Data

Freq. (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
5	1.00	10.57	22.57	24.73	30.83	21.85
23	1.01	10.63	23.10	25.60	33.61	26.74
41	1.03	10.63	23.37	25.58	33.93	26.28
58	1.03	10.63	23.51	25.65	33.82	25.95
113	1.04	10.66	23.89	26.05	32.96	25.10
328	1.06	10.82	25.82	28.44	29.96	21.30
520	1.17	10.85	29.42	29.47	28.27	18.25
640	1.22	10.92	31.06	27.71	27.46	16.72
840	1.38	10.92	25.91	22.91	25.56	14.79
1000	1.48	11.04	21.18	19.46	23.05	13.72

## Maximum Ratings

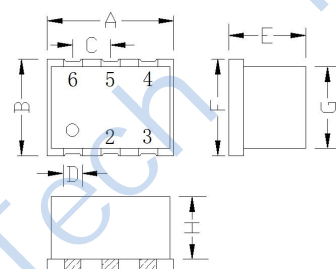
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

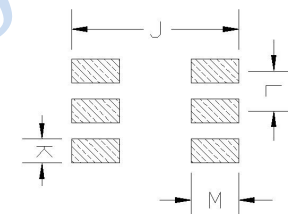
## Pin Connections

INPUT	1
OUTPUT	6
COUPLED	3
GROUND	2,5
ISOLATE (DO NOT USE) Stop welding ground	4

## Outline Drawing



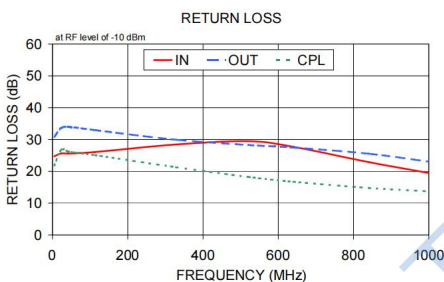
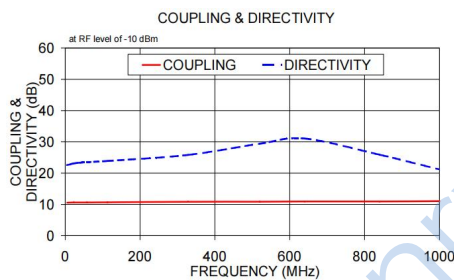
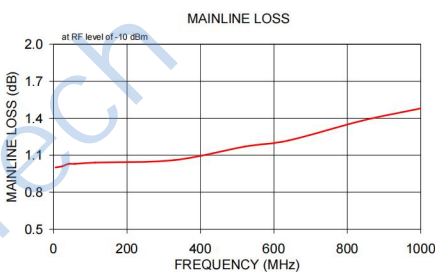
## PCB Land Pattern



Suggested Layout, Tolerance to be within ±0.5

## Outline Dimensions: Unit (mm)

	A	J	K	L	M	WT
	8.70	8.00	1.50	2.54	2.00	0.5g
	6.50	1.50	5.50	4.30		
	2.54	5.50	2.54			
	1.30	4.30				
	5.40	2.54				
	6.50	2.00				
		0.5g				



## Suggested PCB Layout

